

REMARKS

Claims 1-24 are currently pending. Claims 1-24 are rejected under 35 U.S.C. §§ 101, 112, and 103(a).

REJECTION OF CLAIMS 1-24 UNDER 35 U.S.C. § 101

Claims 1-24 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. This rejection is respectfully traversed.

Rejection of Claims 1-11

On page 2 of the Office Action, the Examiner states:

Claims 1-11 recite “A financial instrument”. It is not clear if the claimed invention is a “new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof”. A financial instrument is essentially a contract and as such does not fall into one of the above-mentioned categories.

Further, claims 1-11 are directed to disembodied data structure which are per se are not statutory (*In re Warmerdam*, No. 93-1294 (Fed. Cir. August 11, 1994)). Note that functional descriptive material consists of data structure and computer programs, which impart functionality when employed as a computer component. Nonfunctional descriptive material includes but is not limited to music, literary works and a mere compilation or mere arrangement of data. In the present case, the claimed data structure is mere arrangement of data pertaining to a financial instrument without any associated functionality.

The Examiner cites *In re Warmerdam* for the proposition that “disembodied data structure which are per se are not statutory.” However, *Warmerdam* is directed to a method claim for solving a mathematical algorithm. The Federal Circuit recognized that the Supreme Court in *Diamond v. Diehr*, 450 U.S. 175 (1981), said that “[e]xcluded from such patent protection are laws of nature, natural phenomena, and abstract ideas.” 33 F.3d at 1358. Claim 1 is not a law of nature, natural phenomena, or an abstract idea.

According to the Court of Appeals for the Federal Circuit, a claimed invention as a whole must be useful and accomplish a practical application, *i.e.*, a useful, concrete and tangible result. *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368, 1373-74 (Fed. Cir. 1998). The purpose of this

requirement is to limit patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research. *See Brenner v. Manson*, 383 U.S. 519, 528-36 (1966); *In re Fisher*, 421 F.3d 1365 (Fed. Cir. 2005); *In re Ziegler*, 992 F.2d 1197, 1200-03 (Fed. Cir. 1993). Accordingly, the present application discloses the “real world” value of the invention of independent claim 1 and is clearly more than just an idea or concept.

It is recognized that section 101 does require that the subject matter sought to be patented be a “useful” invention. For an invention to be “useful,” it must satisfy the utility requirement of section 101. The USPTO's official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible. MPEP § 2107; *In re Fisher*, 421 F.3d 1365 (Fed. Cir. 2005) (citing the Utility Guidelines with approval for interpretation of “specific” and “substantial”). A specification of a patent application can contain some indication of the usefulness of the invention. For example, the specification of the present application recites:

Hence, the ICON product according to embodiments of the present invention can be structured to achieve favorable tax treatment under the current U.S. tax codes for the issuer while preserving separate accounting for the convertible security and the call spread. Particularly, the issuer can identify the “mirror” lower-strike call option and the convertible security as a single integrated transaction for tax purposes. For instance, the cash flows on the purchased lower-strike call option can be designed to match the cash flows on the convertible so that the issuer can be treated as having issued a fixed rate debt instrument security with an original issue discount (OID) equal to the amount of the premium for the lower-strike call option. As a result, the OID is deductible as an additional interest expense amortized on a constant yield to maturity basis over the life of the convertible security. Yet, for accounting purposes, the book-interest expense can be limited to the coupon on the convertible security. Furthermore, as mentioned earlier, the features of the written (higher-strike) call option can be designed to be non-matching with those of the purchased (lower-strike) call option. This allows for separate, non-integrated tax treatment from the integrated transaction to thereby preserve the full deductibility of the OID on the integrated transaction.

The preferred embodiments of the present invention also provide an ICON product that allows the issuer to increase the effective conversion premium, while reflecting a low interest expense for EPS purposes. The pairing of a call spread with a convertible security in the ICON product allows the issuer to efficiently repurchase the shares underlying the security and thus minimize dilution.

Pages 6-7. It is evident from a reading of the specification and the claims as to why the claimed invention is useful. Further, although the present application identifies numerous utility and practical applications, only one is necessary to establish utility. Additionally, the specification of the present application sets forth the features necessary to accomplish the practical applications.

Further, claims 1-11 accomplish a tangible result. The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a section 101 judicial exception, in that the process claim must set forth a practical application of that section 101 judicial exception to produce a real-world result. *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972) (invention ineligible because had "no substantial practical application."). "[A]n application of a law of nature or mathematical formula to a . . . process may well be deserving of patent protection." *Diamond v. Diehr*, 450 U.S. 175, 187 (1981) (emphasis added); *see also Corning v. Burden*, 56 U.S. (15 How.) 252, 268 (1854) ("It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . ."). In other words, the opposite meaning of "tangible" is "abstract."

Claims 1-11 also produce a "concrete" result. Usually, this question arises when a result cannot be assured. In other words, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. *In re Swartz*, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is "irreproducible" claim should be rejected under section 101). The opposite of "concrete" is unrepeatable or unpredictable. Resolving this question is dependent on the level of

skill in the art. For example, if the claimed invention is for a process which requires a particular skill, to determine whether that process is substantially repeatable will necessarily require a determination of the level of skill of the ordinary artisan in that field. An appropriate rejection under 35 U.S.C. § 101 should be accompanied by a lack of enablement rejection under 35 U.S.C. § 112, paragraph 1, where the invention cannot operate as intended without undue experimentation.

Claim 1 is not a mere arrangement of data pertaining to a financial instrument without any associated functionality. Claim 1 is directed towards a system for integrating a convertible security with a call spread to form a financial instrument having the benefits of low coupons and tax efficiencies. For example, claim 1 recites “a first call option when exercised provides a second potential financial benefit substantially the same as the first potential financial benefit.” Unlike a data arrangement, such as a literary work or music, the “financial instrument” provides a useful, concrete, and tangible result.

The Examiner likens a “financial instrument” to a contract. Although the undersigned representative does not necessarily agree with this interpretation, a contract is considered functional descriptive material. Because a contract is often expressed on printed material or through a computer program, the functionality renders a contract as statutory subject matter under section 101. Accordingly, the Examiner’s analogy of a contract only furthers the undersigned representative’s argument.

Hence, claim 1 does include associated functionality and is statutory subject matter as defined in 35 U.S.C. § 101. Further, dependent claims 2-11 are also believed to be allowable as they contain the limitations of the claims on which they depend. Therefore, the undersigned representative respectfully requests that the Examiner withdraw the rejection of claims 1-11 under 35 U.S.C. § 101.

Rejection of claim 12-24

Claims 12-24 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. On page 3 of the Office Action, the Examiner states:

Specifically, the method claim as presented does not claim a technological basis in the preamble and the body of the claim. Without a claimed basis, the claim may be interpreted in an alternative as involving no more than a manipulation of an abstract idea and therefore non-statutory under 35 U.S.C. 101. In contrast, a method claim that includes the body of the claim structural/functional interrelationship which can only be computer implemented is considered to have a technological basis [See *Ex parte Bowman*, 61 USPQ2d 1669, 1671 (Bd. Pat. App. & Inter. 2001) – used only for content and reasoning since it is not precedential].

As set forth in the Patent Eligible Subject Matter Interim Guidelines, a practical application of a 35 U.S.C. Sec. 101 judicial exception is claimed if the claimed invention physically transforms an article or physical object to a different state or thing, or if the claimed invention otherwise produces a useful, concrete, and tangible result. Therefore, the Interim Guidelines caution examiners not to apply the “technological arts” test. United States patent law does not support the application of a “technical aspect” or “technological arts” requirement. Title 35 of the United States Code does not recite, explicitly or implicitly, that inventions must be within the “technological arts” to be patentable. Section 101 of Title 35 recites that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor” Accordingly, while an invention must be “new” and “useful,” there is no statutory requirement that it fit within a category of “technological arts.”

In *Ex parte Lundgren*, Appeal No. 2003-2088, Application 08/093,516, (Precedential BPAI opinion September 2005), the Board held that “there is currently no judicially recognized separate ‘technological arts’ test to determine patent eligible subject matter under Sec. 101.” *Id.* at 9. USPTO personnel should no longer rely on the technological arts test to determine whether a claimed invention is directed to statutory subject matter. As recognized in *Diamond v. Diehr*, there are no other

recognized exceptions to eligible subject matter other than laws of nature, natural phenomena, and abstract ideas. 450 U.S. 175 (1981). Thus, this “technological basis” rejection has been rendered moot and is improper in view of *Lundgren*. Claims 12-24 are not directed to laws of nature, physical phenomena, or abstract ideas.

Therefore, claims 12-24 are directed to statutory subject matter as defined in 35 U.S.C. § 101. The undersigned representative respectfully requests that the Examiner withdraw the rejection of claims 12-24 under 35 U.S.C. § 101.

REJECTION OF CLAIMS 1-24 UNDER 35 U.S.C. § 112

Claims 1-24 are rejected under 35 U.S.C. § 112. This rejection is respectfully traversed.

Claims 1-11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. On page 3 of the Office Action, the Examiner states that “It is not clear if by the term ‘A financial instrument’, the Applicants mean ‘a method’, ‘an apparatus’ or ‘a process’.” Claims 1-11 particularly point out and distinctly claim a financial instrument. As indicated above in the 101 rejection, the Examiner stated that “A financial instrument is essentially a contract ...” Thus, the Examiner has demonstrated that the subject matter of claims 1-11 is clearly understood. Moreover, there is no requirement under 35 U.S.C. 112 that a claim must include specific terms, such as “a method, apparatus, or process.”

Claims 12-24 are rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. On pages 3-4 of the Office Action, the Examiner states that “In claim 12 it is not clear as to how the three steps of the claim are related to each other. Each of the steps can be performed independently and separately from each other.” Regarding claims 12-24, claim 12 is complete, does not omit a gap between the necessary structural connections, and conforms with MPEP 2172.01. MPEP 2172.01 recites:

A claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling. *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). See also MPEP § 2164.08(c). Such essential matter may include missing elements, steps or necessary structural cooperative relationships of elements described by the applicant(s) as necessary to practice the invention.

In addition, a claim which fails to interrelate essential elements of the invention as defined by applicant(s) in the specification may be rejected under 35 U.S.C. 112, second paragraph, for failure to point out and distinctly claim the invention. See *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976); *In re Collier*, 397 F.2d 1003, 158 USPQ 266 (CCPA 1968). But see *Ex parte Nolden*, 149 USPQ 378, 380 (Bd. Pat. App. 1965) ("[I]t is not essential to a patentable combination that there be interdependency between the elements of the claimed device or that all the elements operate concurrently toward the desired result"); *Ex parte Huber*, 148 USPQ 447, 448-49 (Bd. Pat. App. 1965) (A claim does not necessarily fail to comply with 35 U.S.C. 112, second paragraph where the various elements do not function simultaneously, are not directly functionally related, do not directly intercooperate, and/or serve independent purposes.).

As stated in MPEP§ 2172.01, "[I]t is not essential to a patentable combination that there be interdependency between the claim elements of the claimed device or that all of the elements operate concurrently toward the desired result." *Ex parte Huber*, 148 USPQ 447, 448-49 (Bd. Pat. App. 1965). In claim 12, the "first providing," "second providing," and "third providing" steps are clearly related, although it is not necessary. Although the Examiner asserts that it is not clear how the three steps are related to each other, the Examiner later asserts that the cited references (Field and Seaman) teach or suggest the three steps in a single financial instrument. Accordingly, the Examiner attempts to reject the claims for not having related elements, but then cites a reference that the Examiner believes recites the supposedly unrelated elements. Albeit unnecessary, the relatedness of the elements of claim 12 is evident from the claim language.

The Examiner also rejects claims 1 and 12. On page 4 of the Office Action, the Examiner states, "Claims 1 and 12 cite the limitation 'a second potential financial benefit substantially the same as the first potential financial benefit'. The term

‘substantially the same’ renders the claim indefinite because the metes and bounds of this term are not clear.” It is entirely proper for claims 1 and 12 to recite “substantially the same.” When “substantially” is used to modify “same,” then the scope of the claim allows for values that are the same and those values that are close, but not exactly the same. According to MPEP § 2173.05(b), “[t]he fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. 112, second paragraph.” MPEP § 2173.05(b) (citing *Seattle Box Co. v. Industrial Crating & Packaging, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984)). The MPEP further explains that “substantially,” in particular, is acceptable:

The term "substantially" is often used in conjunction with another term to describe a particular characteristic of the claimed invention. It is a broad term. In *re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). The court held that the limitation "to substantially increase the efficiency of the compound as a copper extractant" was definite in view of the general guidelines contained in the specification. In *re Mattison*, 509 F.2d 563, 184 USPQ 484 (CCPA 1975). The court held that the limitation "which produces substantially equal E and H plane illumination patterns" was definite because one of ordinary skill in the art would know what was meant by "substantially equal." *Andrew Corp. v. Gabriel Electronics*, 847 F.2d 819, 6 USPQ2d 2010 (Fed. Cir. 1988).

Thus, “substantially the same” does not render claims 1 and 12 indefinite.

Therefore, the undersigned representative respectfully requests that the Examiner withdraw the rejection of claims 1-24 under 35 U.S.C. § 112.

REJECTION OF CLAIMS 1-24 UNDER 35 U.S.C. § 103(a)

Claims 1-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Field et al.* (U.S. Patent Publication No. 2003/0167218) (“Field”) in view of *Seaman* (U.S. Patent Publication No. 2004/0098327). This rejection is respectfully traversed.

The combination of *Field* and *Seaman* does not establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art,

to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Neither Field nor Seaman, alone or in combination, teach or suggest “a second call option when exercised provides a third potential financial benefit different from the second potential financial benefit,” as recited in claims 1 and 12. On page 4 of the Office Action, the Examiner states, “Field does not explicitly teach the steps of ... providing a second call option that when exercised provides a third potential financial benefit different from the second potential financial benefit.” Accordingly, as admitted by the Examiner, Field does not teach or suggest each and every element of the claims of the present application.

Seaman does not cure the deficiencies of Field. In claims 1 and 12 of the present application, an issuer can sell a “second call option.” In an exemplary embodiment of the present application,

For the call spread 150, the issuer 120 can use a portion of the proceeds 115 from the sales of the traditional convertible security 110, or any desired funds, to: a) repurchase, at a call premium 153, a first call option 151 (having a first strike price) from the counterparty that “mirrors” the conversion features of the convertible security 110; and b) simultaneously sells, for a call premium 157, a separate second call option 155 to the counterparty 130 at a higher strike price with features that do not match those of the first call option 151. Alternatively, the issuer 120 can sell the second call option 155 to a counterparty other than the counterparty 130 from which the issuer 120 has purchased the first call option 151.

Para. [0012] (emphasis added). A “convertible security instrument,” as recited in Seaman, does not teach or suggest a “second call option,” as recited in claims 1 and 12. Seaman recites that “[a] contingent convertible financial instrument which includes a bond portion and an embedded option portion.” Abstract. The mere recitation of a “call option” is not sufficient to teach or suggest a “second call option,”

as recited in claims 1 and 12. Seaman's recitation of an option does not teach or suggest a "first call option" and a "second call option." On page 5 of the Office Action, the Examiner states:

Options that provide similar potential benefit or different potential benefit are old and well known in the art. For instance when a convertible security has a conversion price and conversion data the same as the exercise price of a call and the expiration date of the call, the potential benefit of the convertible and the call option are the same. If on the other hand if the conversion date differs from the expiration date and/or the conversion price is different from the exercise price the potential benefits are different.

Although benefits can differ based on the conversion/exercise price/date, claims 1 and 12 recite a "first call option" and a "second call option." As a result, the present application recites two different call options, rather than only one call option that can differ based on the conversion or exercise price or date. Thus, Seaman does not teach or suggest "a second call option when exercised provides a third potential financial benefit different from the second potential financial benefit," as recited in claims 1 and 12.

Thus, the Patent Office has not met its burden because neither Field nor Seaman, alone or in combination, teaches or suggests each and every element of claims 1 and 12. Further, dependent claims 2-11 and 13-24 are also believed to be allowable as they contain the limitations of the claims on which they depend. Therefore, the undersigned representative respectfully requests that the Examiner withdraw the rejection of claims 1-24 under 35 U.S.C. § 103.

CONCLUSION

The undersigned representative respectfully submits that this application is in condition for allowance, and such disposition is earnestly solicited. If the Examiner believes that the prosecution might be advanced by discussing the application with the undersigned representative, in person or over the telephone, we welcome the opportunity to do so. In addition, if any additional fees are required in connection with the filing of this response, the Commissioner is hereby authorized to charge the same to Deposit Account No. 501458.

Respectfully submitted,

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